B. Amendment to the Claims

Please cancel claims 1-5, 8-14, 16-31, 34-38, 40 and 42-50 without prejudice or disclaimer.

Please add new claims 57-80 as follows. A complete listing of the claims in this application is provided.

1-56. (Cancelled)

57. (New) A method of manufacturing a spacer for use in an electron beam apparatus having an airtight container with electron-emitting devices contained therein and spacers provided in the airtight container, the method comprising:

a coating step of proving a film on a spacer substrate, wherein the coating step includes an applying step of applying a liquid film material to the spacer substrate, which is pretreated in advance so that substantially no acute angle in a cross-section is provided at a corner edge between a side surface and a bottom surface of the spacer substrate, by emitting the liquid film material from an emitting portion.

58. (New) The method according to claim 57, further comprising a moving step of changing a relative poison of the emitting portion and the spacer substrate.

59. (New) The method according to claim 57, wherein the applying step includes a step of emitting a droplet of the liquid film material from a single emitting portion.

60. (New) The method according to claim 57, wherein in the applying step, the liquid film material is emitted from the emitting portion by generating a bubble in the liquid film material before the emission.

61. (New) The method according to claim 57, wherein in the applying step, the liquid film material is emitted from the emitting portion by a piezoelectric device.

62. (New) The method according to claim 57, wherein the applying step includes a step of spraying the liquid film material.

63. (New) The method according to claim 62, wherein a direction in which the liquid film material is sprayed is limited such that the liquid film material is emitted in a predetermined direction.

64. (New) The method according to claim 57, further comprising a film forming step of forming the film from the applied liquid film material.

65. (New) The method according to claim 57, wherein the liquid film material comprises a metal element.

66. (New) The method according to claim 57, wherein the film is an electrode.

67. (New) The method according to claim 57, wherein a plurality of emitting portions are used in the applying step.

68. (New) The method according to claim 57, wherein the liquid film material is applied simultaneously to the side surface and the bottom surface of the spacer substrate.

69. (New) The method according to claim 57, wherein the spacer substrate is pretreated by rounding or tapering the corner edge between the side surface and the bottom surface of the spacer substrate.

70. (New) The method according to claim 57, wherein the spacer substrate is pretreated such that the following relationship is satisfied:

$$(t^2 + 4h^2) < s^2 < (t+2h)^2,$$

wherein t is a maximum value of a thickness of the spacer substrate when the film is formed, h is a height of the film, and s is an inner peripheral length of a section of the film.

71. (New) The method according to claim 69, wherein the rounding of the spacer substrate is carried out such that a radius r of a curvature is 1% or more of a maximum value t of a thickness of the spacer substrate where the film is formed.

72. (New) The method according to claim 57, wherein the spacer substrate is processed using hot-draw, which is carried out with relationship $S_2>S_1$ being satisfied, where S_1 is a cross-section of a desired spacer substrate and S_2 is a cross-section of a spacer base material, with both ends of a spacer base material being fixed, a cross-section of the spacer base material being similar in shape to that of the spacer substrate, a part of the spacer base material in a longitudinal direction being heated to a temperature at or above a softening point while one end portion is fed in a direction of the heated portion at a velocity of V_1 and the other end portion is drawn in the same direction as that of V_1 at a velocity of V_2, and a relationship $S_1 / S_2 = V_1 / V_2$ being satisfied, and

wherein the spacer base material is cooled after the hot-drawn spacer base material is cut to have a desired length.

73. (New) The method according to claim 57, wherein the spacer substrate is formed of glass or ceramic.

74. (New) The method according to claim 57, wherein a high resistance film is formed on the spacer having the film formed thereon.

75. (New) The method according to claim 74, wherein the high resistance film has a surface resistance value of 10^5-10^{12} Ω/square.

76. (New) The method according to claim 75, wherein the film has a surface resistance value of 1/10 or less of that of the high resistance film, and less than 10^7 Ω/square.

77. (New) The method according to claim 74, wherein, in the applying step, the film material is applied to a part of a pretreated area.

78. (New) A method of manufacturing an electron beam apparatus having an airtight container with electron-emitting devices contained therein and the spacers provided in said airtight container, comprising, wherein the spacer is manufactured according to claim 57.

79. (New) A method of manufacturing a spacer for use in an electron beam apparatus having an airtight container with electron-emitting devices contained therein and spacers provided in said airtight container, the method comprising:

a coating step of proving a film on a spacer substrate, wherein the coating step includes an applying step of applying a liquid film material to the spacer substrate, which is pretreated in advance so that substantially no acute angle in a cross-section is provided at a corner edge between a side surface and a bottom surface of the spacer substrate, by emitting the liquid film material drop by drop from an emitting portion.

80. (New) The method according to claim 79, wherein the applying step is performed using a plurality of emitting portions each emitting the liquid film material drop by drop.